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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,515	10/10/2001	Masateru Akachi	SONYJP-132	4181

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EXAMINER	
SHERKAT, AREZOO	
ART UNIT	**PAPER NUMBER**
2131	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/869,515	AKACHI, MASATERU	
	Examiner	Art Unit	
	Arezoo Sherkat	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *26-86* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26-86* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

This office action is responsive to Applicant's amendment received on August 8, 2005. Claims 35-37, 48-51, 58, 63-64, 68-69, 74-75, and 79-83 are amended. Claims 26-86 are pending.

Response to Arguments

Applicant's arguments with respect to claims 26-86 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

The indicated allowability of claims 29, 32, 43, and 46 is withdrawn in view of the newly discovered reference(s) to Arrow et al., (U.S. Patent No. 6,154,839 and Arrow hereinafter), in view of Dillon and Chiu. Rejections based on the newly cited reference(s) follow.

Claims 37, 39, 51, 53, 67-68, and 78-79 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 26, 29-32, 38, 40, 43-46, 52, 54-58, 60-61, 64-66, 69, 71-72, 75-77, and 80-86 are rejected under 35 U.S.C. 102(b) as being anticipated by Arrow et al., (U.S. Patent No. 6,154,839 and Arrow hereinafter).

Regarding claims 26, 40, and 54-57, Arrow discloses a method of processing received data for delivery to a respective one of plurality of processing devices, each said plurality of processing devices having corresponding address, said method comprising:

reading an address from portion of said received data, and decoding said portion of said received data to form decoded data when said portion of said received data is intended for group of said processing devices that includes said respective one of said plurality of processing devices or when said portion of said received data is intended solely for said respective one of said plurality of processing devices (Col. 8, lines 4-53);

said portion of said received data being determined to be intended for said group by comparing at least segment of said read address to a corresponding segment of stored address that associated with said group, said segment of said read address and said corresponding segment of said stored address being identified by a stored mask sequence, and said portion of said received data being determined to be intended solely for said respective one of said plurality processing devices comparing said read address

to said corresponding address of said respective one of said plurality of processing devices (Col. 9, lines 19-49).

Regarding claims 29 and 43, Arrow discloses wherein said segment of said read address is compared to said corresponding segment of said stored address by comparing, for each bit position identified by said stored mask sequence, a bit of said read address with its corresponding bit of said stored address (Col. 9, lines 19-49).

Regarding claims 30 and 44, Arrow discloses wherein at least a segment of said corresponding address of each processing device of said group is common to all of said group, and said mask sequence identifies said bit positions of said common segment (Col. 9, lines 19-49).

Regarding claims 31 and 45, Arrow discloses wherein said corresponding address of each processing device of said group is associated with a stored further address, at least a segment of said stored further address being common to all of said group, and said mask sequence identifies said bit positions of said common segment (Col. 9, lines 19-49).

Regarding claims 32 and 46, Arrow discloses wherein said segment of said read address is compared with said corresponding segment of said stored address only when a stored value associated with said stored address indicates that said stored

address is in a valid state (Col. 6, lines 60-67 and Col. 7, lines 1-67 and Col. 8, lines 1-4).

Regarding claims 38 and 52, Arrow discloses wherein said decoder searches a table to determine whether said read address indicates that said portion of said received data is intended for said group or is intended solely for said respective one of said plurality of processing devices (Col. 9, lines 19-49), and when said portion of said received data is encrypted, said decoder again searches said table to locate said stored address that coincides with said read address and then retrieves a decryption key corresponding to said stored address (Col. 7, lines 40-60).

Regarding claims 58, 69, and 80-86, Arrow discloses method of sending data to at least one of plurality of processing devices, each of said plurality of processing devices having a corresponding address, said method comprising:

encoding at least a portion of said data, attaching a control address said portion said data, said control address being associated with said corresponding address respective one said plurality of processing devices when said portion of said data is intended solely for said respective one of said plurality of processing devices, at least a segment of said control address being associated with a group of said processing devices when said portion of said data is intended for each of said processing devices in said group, transmitting said portion of said data, receiving said portion of said data, reading said control address from said portion of said data, decoding said portion of the

data to form decoded data when said portion of said data intended a group said processing devices that includes said respective one of said plurality of processing devices or when said portion said data is intended solely for said respective one of said plurality of processing devices, and delivering said decoded data to said respective one of said plurality of processing devices (Col. 6, lines 60-67 and Col. 7, lines 1-67 and Col. 8, lines 1-4);

said portion of said data being determined to be intended for said group by comparing at least a segment of said control address to a corresponding segment of a stored address that is associated with said group, said segment of said control address and said corresponding segment of said stored address being identified by a stored mask sequence, and said portion of said data being determined to be intended solely for said respective one of said plurality of processing devices by comparing said control address to said corresponding address of said respective one of said plurality of processing devices (Col. 7, lines 40-61 and Col. 9, lines 19-48).

Regarding claims 60 and 71, Arrow discloses wherein at least a segment of said corresponding address of each processing device of said group is common to all of said processing devices in said group, and when said portion of the data is intended for each of said processing devices in said group, said segment of said control address comprises said segment of said corresponding address (Col. 7, lines 40-61 and Col. 9, lines 19-48).

Regarding claims 61 and 72, Arrow discloses wherein said corresponding address of each of said processing devices in said group is associated with a further address, at least a segment of said further address being common to all of said processing devices in said group, and when said portion of said data is intended for each of said processing devices in said group, said segment of said control address comprises said segment of said further address (Col. 9, lines 19-48).

Regarding claims 64 and 75, Arrow discloses wherein said encoding step includes encrypting said portion of said data using an encryption key associated with said control address (Col. 6, lines 60-67 and Col. 7, lines 1-67 and Col. 8, lines 1-4).

Regarding claims 65 and 76, Arrow discloses wherein, when said portion of said data is intended solely for said respective one of said plurality of processing devices, said encryption key corresponds to said respective one of said plurality of processing devices (Col. 6, lines 60-67 and Col. 7, lines 1-67 and Col. 8, lines 1-4).

Regarding claims 66 and 77, Arrow discloses wherein, when said portion of said data is intended for said respective one of said plurality of processing devices, said encryption key corresponds to said group (Col. 6, lines 60-67 and Col. 7, lines 1-67 and Col. 8, lines 1-4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 33-36, 47-50, 62-63, and 73-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arrow et al., (U.S. Patent No. 6,154,839 and Arrow hereinafter), in view of Chiu et al., (U.S. Patent No. 5,784,597 and Chiu hereinafter).

Teachings of Arrow with respect to claims 26, 40, 58, and 69 have been discussed previously.

Regarding claims 33-34, and 47-48, Arrow does not expressly disclose converting the destination address to a hash value.

However, Chiu discloses wherein said read address is compared with said corresponding address by converting said read address into a value having fewer bits than said read address and then comparing said converted value (i.e., hashed value) to a stored value associated with said corresponding address (Col. 24, lines 57-67 and Col. 25, lines 1-25).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify Arrow's disclosure by including converting said read address into a value having fewer bits than said read address as disclosed by

Chiu. This modification would have been obvious because one of ordinary skill in the art would have been motivated by the suggestion of Chiu to provide a method for making a quick exact comparison of the MAC address (Chiu, Col. 25, lines 1-11).

Regarding claims 35-36 and 49-50, Arrow discloses decrypting said portion of said received data using a decryption key that is either a private key or a public key (Col. 10, lines 40-56).

Arrow does not expressly disclose the step of determining whether the received data is encrypted.

However, Chiu discloses wherein said decoding step includes determining whether said portion of said received data is encrypted (Col. 15, lines 40-45 and Col. 24, lines 57-67 and Col. 25, lines 1-25).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify Arrow's disclosure by including the step of determining whether the received data is encrypted as disclosed by Chiu. This modification would have been obvious because one of ordinary skill in the art would have been motivated by the suggestion of Chiu to provide a method of indicating whether transmitted data is encrypted or not (Chiu, Col. 14, lines 11-15).

Regarding claims 62 and 73, Arrow does not expressly disclose converting the destination address to a hash value, when said portion of said data is intended solely for said respective one of said plurality of processing devices.

However, Chiu discloses wherein the control address is convertible into a value having fewer bits than said control address, said converted value being associated with said corresponding address (Col. 25, lines 1-15).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify Arrow's disclosure by including converting the control address into a value having fewer bits than said read address as disclosed by Chiu. This modification would have been obvious because one of ordinary skill in the art would have been motivated by the suggestion of Chiu to provide a method to provide a method for making a quick exact comparison of the MAC address (Chiu, Col. 25, lines 1-11).

Regarding claims 63 and 74, Arrow does not expressly disclose wherein said encoding step includes attaching a flag indicating whether said portion of said data is encrypted.

However, Chiu discloses wherein said encoding step includes attaching a flag indicating whether said portion of said data is encrypted (Col. 15, lines 40-45).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify Arrow's disclosure by including attaching a flag indicating whether said portion of said data is encrypted as disclosed by Chiu. This modification would have been obvious because one of ordinary skill in the art would have been motivated by the suggestion of Chiu to provide a method of indicating whether transmitted data is encrypted or not (Chiu, Col. 14, lines 11-15).

Claims 27-28, 41-42, 59, and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arrow et al., (U.S. Patent No. 6,154,839 and Arrow hereinafter), in view of Dillon, (U.S. Patent No. 5,659,615).

Teachings of Arrow with respect to claims 26, 40, 58, and 69 have been discussed previously.

Regarding claims 27 and 41, Arrow does not expressly disclose wherein said decoding step includes decoding said portion of said received data when said portion of said received data is intended for all of said plurality of processing devices.

However, Dillon discloses wherein said decoding step includes decoding said portion of said received data when said portion of said received data is intended for all of said plurality of processing devices (Col. 4, lines 8-51).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify Arrow's disclosure by including decoding said portion of said received data when said portion of said received data is intended for all of said plurality of processing devices as disclosed by Dillon. This modification would have been obvious because one of ordinary skill in the art would have been motivated by the suggestion of Dillon to provide a secure method of sending satellite signal to plurality of receivers, while the data is encrypted using a key known to all the plurality of receivers (Dillon, Col. 1, lines 5-26).

Regarding claims 28 and 42, Arrow does not expressly disclose wherein said portion of said received data is intended for all of said plurality of processing devices when at least said segment of said read address is a predefined broadcast value.

However, Dillon discloses wherein said portion of said received data is intended for all of said plurality of processing devices when at least said segment of said read address is a predefined broadcast value (Col. 5, lines 54-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify Arrow's disclosure by including wherein said portion of said received data is intended for all of said plurality of processing devices when at least said segment of said read address is a predefined broadcast value as disclosed by Dillon. This modification would have been obvious because one of ordinary skill in the art would have been motivated by the suggestion of Dillon to provide a secure method of sending satellite signal to plurality of receivers, while the data is encrypted using a key known to all the plurality of receivers (Dillon, Col. 1, lines 5-26).

Regarding claims 59 and 70, Arrow does not expressly disclose wherein said segment of said control address is a predefined broadcast value when said portion of said data is intended for all of said plurality of processing devices.

However, Dillon discloses wherein said segment of said control address is a predefined broadcast value when said portion of said data is intended for all of said plurality of processing devices (i.e., I/G flag field determines if the address in the

destination address field is an individual address or an address of multiple receivers)(Col. 3, lines 40-63).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify Arrow's disclosure by including wherein said segment of said control address is a predefined broadcast value when said portion of said data is intended for all of said plurality of processing devices as disclosed by Dillon. This modification would have been obvious because one of ordinary skill in the art would have been motivated by the suggestion of Dillon to provide a secure method of sending satellite signal to plurality of receivers, while the data is encrypted using a key known to all the plurality of receivers (Dillon, Col. 1, lines 5-26).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Coss et al., (U.S. Patent No. 6,141,749),

Jagannath et al., (U.S. Patent No. 6,483,833),

Chien et al., (U.S. Publication No. 2003/0115345), and

DeSouza et al., (U.S. Patent No. 5,379,289).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arezoo Sherkat whose telephone number is (571) 272-3796. The examiner can normally be reached on 8:00-4:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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